Attitude Toward Death in Healthy People and Patients With Diabetes and Cancer

Masoumeh Nozari[1], Yarali Dousti[1]

Abstract

Background: A person's beliefs can influence the progression of his/her disease; and battling an illness can trigger severe anxiety about death. This study aims to compare the attitude toward death between healthy people and those suffering from diabetes and cancer.

Methods: In a cross-sectional study, 300 individuals were selected by convenient sampling method. Three groups were matched by gender, age, education, and monthly income. Information was collected through a Death Attitude Profile-Revised (DAPR) questionnaire and Analyzed Via Covariance (ANCOVA).

Results: The results indicated no difference in death attitude among the three groups ($f=2.705$, $p<0.05$). All the three groups displayed a higher mean in neutral and approach acceptance.

Conclusion: In this study, it was found that disease did not seem to change death attitudes; rather the patients' current attitude had been shaped by previous stages of their sickness.

Keywords: Attitudes to death; Digestive system cancer; Breast cancer; Diabetes mellitus type II

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1. Dept. of Psychology, Islamic Azad University, Sari Branch, Sari, Iran

Corresponding Author:
Masoumeh Nozari, MA
Tel:(+98)15 13 11 53 47
E-mail: nsk_nozari@yahoo.com

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Introduction

Throughout the 20th century, the most prevalent causes of mortality have changed from infectious maladies to chronic diseases such as heart diseases and cancer which are related to life style choices and unhealthy behaviors. People react in a wide range of ways when dealing with anxiety about death. They may be inclined to increase or decrease health-promoting behaviors [1, 2]. According to Niemeyer, Wittkowski, and Moser (2004), being sick itself doesn't trigger death worries in some people [3]. Some studies have been conducted on the relationship between negative emotions and life expectancy, lifestyle, depression, and disappointment with incurably sick people [4, 5].

Despite medical improvements in cancer control, cancer is still the leading cause of death and there is no definite cure for it. In the advanced stages of the disease, patients tolerate pain and reflect on their lives. They try to resolve old conflicts and prepare to say goodbye to their family and give up life. This stage is demanding and stressful for many patients. An individual's knowledge and attitude toward death and life after death influences the way they deal with the above-mentioned issues [5]. In their study about building death attitude profiles, Scale, Wang, et al. (1994) is among the researchers who consider positive and negative attitudes toward death. They concluded that positive attitudes include three components of death acceptance, and negative attitudes embody death, fear, and escape [3, 6].

Death acceptance covers Neutral Acceptance (NA), Escape Acceptance (EA), and Approach Acceptance (AA). In NA, the individual's view is such that he considers death an indispensable part of life, and he/she is neither afraid of death nor welcomes it. Rather, he/she accepts death simply as one of life's realities. In AA, people view death as a gate to post-life happiness. Both NA and AA toward death have a positive relationship with psychological wellbeing and a negative relationship with depression. In the EA approach, death is an attractive option to get rid of psychological and existential pain and suffering [3, 6].

Vernur (1972) believes that fear of life under certain conditions maybe more powerful than the fear of death. Individuals who tolerate a torturous life and aren't hopeful of experiencing a joyful life

are inclined to get rid of pain and suffering through death. Therefore, AA is based on the idea that death is good and life is bad. Negative attitudes toward death embody two factors: First, Fear of Death (FD), the perspective in which there is negative thoughts and feelings about discussing death and the dying process. Individuals fear death for a variety of reasons. Fear sources include: self-deficiency, the fear of death's unknowns, pain and suffering, and lost opportunities. The second factor includes Avoidance of Death (AD), and it refers to the mechanisms people use to avoid talking and thinking about death in an effort to decrease death anxiety [3, 6].

On the other hand, denying death creates psychological anxiety and tension. This may cause a decrease in the individual's quality of life and he may not live the remaining days of his life fully [7]. Analyzing the effects of the attitudes related to life and death among nursing students revealed the possibility of promotion of significant perception of life in four classes: openness, sadness about death, treating life sincerely, and promoting a hopeful life. In their mind, a positive change in life results in self-reflection and better interaction with others [8]. Divers' studies state that in societies where people attend more religious services, there is less death anxiety, and people with inner religious motivation have less death anxiety and have a stronger faith in a post-death world [9]. Another study analyzing death anxiety in Sari Public Hospital revealed that death anxiety is highly prevalent among hospital staff. This might be due to their special working conditions. In addition, death anxiety has no relationship with such variables as age, marital status, and number of children, education and occupational status [9].

Mehnert and Koch (2011) found that death acceptance and psychological stresses, fighting style and life quality have an impact on health [10]. Some studies have been conducted to compare death anxiety and death attitude among patients with different diseases and also among healthy and sick people. However, few studies have focused on a simultaneous comparison of two kinds of diseases and healthy people. Thus, simultaneous analysis of death attitudes in different patients and healthy individuals can clarify misinformation about the relationship between disease and death attitude, and may prevent self-destructive behaviors during stressful circumstances (like a chronic disease).Therefore, two disease groups, diabetes and cancer, which are among the most chronic and fatal diseases, were selected in this study. Of diabetic diseases, diabetes type II was selected because of its higher prevalence and its outbreak age which is 40 years.

In the cancer group, patients with breast and digestive systems cancer were studied. The occurrence of these two cancers is higher than other cancers, and their outbreak age is similar to diabetes type II. This research aims to compare death attitude in healthy individuals and those suffering from cancer and diabetes.

Materials and Methods

This was an expost facto study. The statistical community consisted of healthy individuals and patients with diabetes type II and cancer (breast and digestive system) who referred to Tooba Specialized Center and Imam Hospital Center from September 2011 to January 2012. The age range of the patients was 20-70 years. Both centers are public hospitals offering therapeutic services. Eighty-seven patients suffering from cancer (breast and digestive system), 108 with diabetes type II, and 105 healthy people participated in the study. Samples were selected by convenient sampling method, and disease type was selected considering its outbreak age. Sample volume was determined with respect to previous studies [11], and the three groups were matched by age, gender, education, and monthly income. Inclusion criteria in the diabetes type II patients were as follows: 1) at least one-year diagnosis of diabetes type II; 2) involved in medical therapy;3) conscious inclination and consensus about participating in the research. The exclusion criteria for the diabetic patients were as follows: 1) suffering from other types of diabetes; 2) use of insulin;3)current experience of acute complications associated withdiabetes;4) suffering from other chronic maladies. Inclusion criteria for cancer patients were: 1) at least six-month diagnosis of breast or digestive system cancer; 2) at least one period of chemotherapy; 3) individual's knowledge about his/her disease; 4) conscious consent. Exclusion criteria for cancer stricken patients were: 1) currently undergoing chemotherapy; 2) suffering from other chronic diseases.

Inclusion criteria for healthy individuals were: 1) no chronic or acute diseases; 2) conscious consent. Those having any kind of disease were excluded from the study. Data were collected by the use of one criterion, self-reporting.

Death Attitude Profile-Revised (DAPR)

This questionnaire was produced by Wang, Reker&Geser in 1994, and it consists of 32 questions

Table 1. Overview of demographic characteristics

Parameter		Number		
		Diabetic	Cancer	Healthy
Age	20-40	24	25	30
	41-50	38	27	45
	51-60	30	18	17
	>60	15	17	7
	Noun character	1	-	6
	Total subject	108	87	105
Sex	Male	10	18	14
	Female	98	69	90
Education	Illiterate	51	42	48
	Junior high school	43	27	35
	High school and college	13	18	18
	Noun character	1	-	4
Monthly income	< 6000000 Rials	57	41	45
	6000000-9000000 Rials	22	28	30
	>9000000 Rials	20	13	14
	Noun character	9	5	16

Table 2. Mauchly's test of sphericity to analyze covariance matrix equality

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	Df	Sig.	Epsilon		
					Lower-bound	Huynh-Feldt	Greenhouse-Geisser
Death attitudes	0.320	328.420	9	0.000	0.250	0.682	0.671

in a seven-degree Likert scale (from completely agree to completely disagree). The reported Cronbach's Alpha coefficients of this questionnaire are as follows: Fear of Death=0.86; Death Avoidances =0.88; Neutral Acceptance= 0.65; Approach Acceptance=0.97; Escape Acceptance=0.84. Validity evaluation of the test has been reported by differential and convergent validity to other tests [12].The Cronbach's Alpha coefficient of the questionnaire is reported to be 0.63 to 0.87 in Iran [13].

Data were analyzed using SPSS 18 software and statistical tests of F.

Results

The mean age of the patients was 45.4 years with the range of 20-70 years. In this study, the collected information on the patient's demographics is listed in table 1.The three groups were matched by age, gender, monthly income, and education. F test has been used to confirm that the groups have been matched by age ($F(2, 288) = 2.830$, $p < 0.05$), and monthly income ($F(2, 288) = 1.466$, $p < 0.05$). Analyzing education ($X^2(10) = 5.476$, $p < 0.05$) and gender ($X^2(2) = 5.259$, $p < 0.05$) homogeneity were done by chi square test.

The results indicate a significant homogeneity of the three groups in age, gender, monthly income, and education. To analyze the differences in various death attitude aspects and to compare them among the patients suffering from cancer, diabetes, and the healthy individuals, the analyzing covariance matrix normality had to be dealt with. The probability level was rejected like Mauchly's test of sphericity to analyze covariance matrix equality because the probability level of variance equality was less than 0.05 (Table 2). Thus, death attitude was analyzed using the Huynh-Feldt method. The study results indicate that various aspects of the mean score of death attitude have significant differences, but the group effect and the counter effect among them was not significant (Table 3). In other words, healthy, diabetic, and cancerous groups had a similar mean in each factor and in general. This implies that each of the three groups ranked death attitude factors equally. This has led to an insignificant group effect and counter effect. Thus, the researcher's hypothesis based on the existence of differences in groups was

Table 3. Analysis of the existence of differences among various death attitudes and difference among groups

	Source	Mean Square	Df	Type III Sum of Squares	F	Sig.
Tests of within-subjects effects	Death attitudes	732. 474	2. 728	268. 455	141. 184	0.000
	Death attitudes and group	9. 576	5. 457	1. 755	0 .923	0.471
	Error (Death attitudes)	1504. 540	791. 259	1. 901		
Tests of between-subjects effects	Group	12. 441	2	6. 221	2. 705	0 .069
	Error	666. 832	290	2. 299		

Table 4. Mean and Standard deviation subscales in three groups

Source	Healthy(H)	Diabetic(D)	Cancer(C)	TOTAL
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
Fear of Death	4.34±1.29	4.45±1.30	4.45±1.41	4.41±1.33
Avoidance of Death	3.88±1.58	4.08±1.68	4.40±1.65	4.11±1.64
Neutral Acceptance	5.70±.70	5.69±.77	5.88±.66	5.75±.72
Approach Acceptance	5.46±.80	5.22±.76	5.51±.85	5.39±.81
Escape Acceptance	3.93±1.37	3.97±1.29	4.10±1.51	3.99±1.38

rejected, but the hypothesis of the existence of differences in death attitude aspects was not rejected.

Among the three groups, Neutral Acceptance had the highest mean, Approach Acceptance was ranked second, and Death Fear was ranked third. However, in the healthy and diabetic groups, Death Avoidance and Escape Acceptance were ranked fourth (Table 4).

Discussion

Data analysis revealed no significant difference in death attitude among the three groups. This finding is contrary to the studies that found patients think more about death than healthy individuals, and they use more conscious expression to vent their worry over death. Studies conducted to compare death anxiety in patients with cancer with other patients revealed that these patients tolerate higher death anxiety [3]. In a study dealing with death anxiety comparison in AIDS-stricken and cancer patients, researchers observed that death anxiety is higher in AIDS patients. Of course, this issue may be associated with special conditions of AIDS and patients' family's views [14]. The results of another study analyzing death attitudes and coping styles in Chinese patients revealed that cancer patients report higher death anxiety compared to patients suffering from hand injuries. In this study, the cancer group with high anxiety used immature strategies like suffering from fantasy autism and passive quarreling [3]. On the other hand, some studies have mentioned that disease conditions might have no effect on death attitude. Studies conducted by Van Laarhoven, et al. (2011) revealed no significant difference in negative attitudes and emotions related to death and life following death in cancer patients without malady evidence and advanced cancer-stricken people. They discovered that negative emotions have a negative relationship with social performance [5].

The findings were compatible with Depaolo's results (2003) that showed the quality and level of worry over death is related to an individual's culture and environment [15]. Thus, it is likely that in a particular culture, there are schemas to help people with cognitive death processing. The schemas influence a person's life philosophy and help control anxiety induced by thoughts of death. Results showed that Neutral and Approach Acceptance have the highest average than other subscales. In Neutral Acceptance, the patient views death as an indispensable part of life and accepts it as a fact of life. On the one hand, in Approach Acceptance, individuals consider death to be a bridge toward a joyful life resulting from the individual's belief in life after death and rewards in the afterlife. The difference between these two kinds of acceptance is that in Neutral Acceptance, death is perceived as one of natural rules while patients having an Approach Acceptance believe that they enter paradise and will lead an ideal life there.

The studies stated that beliefs about life renewal has a positive correlation with cognitive performance [5], belief in God, influence of a superior power reducing stress, physical health, psychological health, and the individual's more powerful sense of belonging to the world [16]. The two approaches are positive, and their positive relationship with psychological well-being and their negative relationship with depression have been confirmed by some previous studies [4, 5]. Other researchers claim that belief in life after death in religious people results in higher death acceptance while individuals with a superficial attitude toward religion or with external religious partiality exhibit higher death anxiety and obsession, indicating their defensive state toward death in processing religious affairs [17- 19]. Therefore, it seems that all groups possess an appropriate profile in death attitude, and this may be due to our society's common religious teachings.

This study was conducted on patients with diabetes type II and on those with breast and digestive system cancers. Thus, generalizing the results to patients with other diseases should be done cautiously. On the one hand, the samples were selected from individuals who referred to public centers. Research on individuals referring to private centers seems necessary. It is suggested that longitudinal studies be conducted on the role of demographic, spirituality and cultural beliefs on how attitudes to death is formed.

Conclusion

To sum up, the results of this study revealed that death attitude in healthy people was not different from that of patients with cancer or diabetes. Therefore, it is possible that the considered diseases do not change death attitude, rather the patients' current attitude are shaped in the period before the onset of the disease. Health and therapeutic system designers can help prevent vulnerability in life's tough situations such as incurable diseases by considering beliefs that shape death-related attitude improvement in healthy individuals.

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Conflict of Interest

The authors have no conflict of interest in this article.

Authors' Contribution

This paper is written based on a thesis research (MA) of Masoumeh Nozari. Masoumeh nozari designed the study, analyzed and wrote the manuscript. Yarali Dousti helped in writing and checking the manuscript.

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